

What Is Claimed Is:

1. A modular connection for connecting together  
a plurality of separate elements so as to form an  
5 orthopedic component, said modular connection  
comprising, in combination, a taper junction and an  
engaged-fit junction.

2. A modular connection according to claim 1  
10 wherein said taper junction is formed by the  
interaction of a first taper with a second taper.

3. A modular connection according to claim 2  
wherein said second taper is formed along a portion of  
15 a sidewall defining an aperture in a first element,  
and said first taper is formed on a projection of a  
second element.

4. A modular connection according to claim 1  
20 wherein said engaged-fit junction is formed by the

interaction of a first concentric wall with a second concentric wall.

5           5.    A modular connection according to claim 4 wherein said second concentric wall is formed along a portion of a sidewall defining an aperture extending in a first element, and said first concentric wall is formed on a projection of a second element.

10           6.    A modular connection according to claim 1 wherein:

            said taper junction is formed by the interaction of a first taper with a second taper, with said second taper being formed along a portion of a sidewall  
15    defining an aperture in a first element, and said first taper being formed on a projection of a second element; and

            said engaged-fit junction is formed by the interaction of a first concentric wall with a second  
20    concentric wall, with said second concentric wall being formed along a portion of a sidewall defining an

aperture extending in a first element, and said first concentric wall is formed on a projection of a second element.

5           7.    A modular connection according to claim 6 wherein said first concentric wall is disposed on the projection of the second element coaxial with, and distal to, said first taper.

10           8.    A modular connection according to claim 7 wherein said second concentric wall is disposed on the first element coaxial with, and distal to, said second taper.

15           9.    A modular connection according to claim 4 wherein said first concentric wall is located internally of said second concentric wall.

20           10.   A modular connection according to claim 9 wherein said first concentric wall is deformed so as

to be pressure locked against said second concentric wall.

11. A modular connection according to claim 10  
5 wherein said first concentric wall is expanded so as  
to be pressure locked against said second concentric  
wall.

12. A modular connection according to claim 11  
10 wherein said second concentric wall is formed along a  
portion of a sidewall defining an aperture in a first  
element, and said first concentric wall is formed on a  
projection of a second element, and further wherein  
said first concentric wall is expanded by insertion of  
15 a third element into a recess formed in the second  
element.

13. A modular connection according to claim 12  
wherein the aperture extends completely through the  
20 first element.

14. A modular connection according to claim 12 wherein the aperture comprises a blind hold formed in the first element.

5           15. A modular connection according to claim 12 wherein the aperture comprises a pair of parallel openings.

10           16. A modular connection according to claim 12 wherein said taper junction and said engaged-fit junction axially overlap one another.

15           17. A modular connection according to claim 4 wherein said first concentric wall is contracted so as to be pressure locked against said second concentric wall.

20           18. An orthopedic component comprising a first element and a second element, with the first element and the second element being secured to one another with a modular connection, wherein said modular

connection comprises, in combination, a taper junction and an engaged-fit junction.

19. An orthopedic component according to claim  
5 18 wherein said taper junction is formed by the interaction of a first taper with a second taper.

20. An orthopedic component according to claim  
19 wherein said second taper is formed along a portion  
10 of a sidewall defining an aperture in said first element, and said first taper is formed on a projection of said second element.

21. An orthopedic component according to claim  
15 18 wherein said engaged-fit junction is formed by the interaction of a first concentric wall with a second concentric wall.

22. An orthopedic component according to claim  
20 21 wherein said second concentric wall is formed along a portion of the sidewall defining an aperture

extending in said first element, and said first concentric wall is formed on a projection of said second element.

5           23. An orthopedic component according to claim 18 wherein:

          said taper junction is formed by the interaction of a first taper with a second taper, said second taper being formed along a portion of a sidewall  
10 defining an aperture in said first element, and said first taper being formed on a projection of said second element; and

          said engaged-fit junction is formed by the interaction of a first concentric wall with a second  
15 concentric wall, with said second concentric wall being formed along a portion of a sidewall defining the aperture in said first element, and said first concentric wall is formed on a projection of said second element.

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24. An orthopedic component according to claim 23 wherein said first concentric wall is disposed on the projection of the second element coaxial with, and distal to, said first taper.

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25. An orthopedic component according to claim 24 wherein said second concentric wall is disposed on the first element coaxial with, and distal to, said second taper.

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26. An orthopedic component according to claim 21 wherein said first concentric wall is located internally of said second concentric wall.

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27. An orthopedic component according to claim 26 wherein said first concentric wall is deformed so as to be pressure locked against said second concentric wall.

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28. An orthopedic component according to claim 27 wherein said first concentric wall is expanded so



as to be pressure locked against said second concentric wall.

29. An orthopedic component according to claim  
5 28 wherein said second concentric wall is formed along  
a portion of a sidewall defining an aperture in said  
first element, and said first concentric wall is  
formed on a projection of said second element, and  
further wherein said first concentric wall is expanded  
10 by insertion of a third element into a recess formed  
in said second element.

30. An orthopedic component according to claim  
29 wherein the aperture extends completely through the  
15 first element.

31. An orthopedic component according to claim  
29 wherein the aperture comprises a blind hole formed  
in the first element.

32. An orthopedic component according to claim  
29 wherein the aperture comprises a pair of parallel  
openings.

5           33. An orthopedic component according to claim  
29 wherein said taper junction and said engaged-fit  
junction axially overlap one another.

10           34. An orthopedic component according to claim  
21 wherein said first concentric wall is contracted so  
as to be pressure locked against said second  
concentric wall.

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